

## RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical  
Information Center (STIC) no errors detected.

Application Serial Number: 10/589,505  
Source: 1Fwd  
Date Processed by STIC: 3/14/07

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IFWO

## RAW SEQUENCE LISTING

DATE: 03/14/2007

PATENT APPLICATION: US/10/589,505

TIME: 09:59:33

Input Set : A:\05101145.APP

Output Set: N:\CRF4\03142007\J589505.raw

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3 <110> APPLICANT: LEMICHEZ, EMMANUEL
4     CZERKINSKY, CECIL
5     ANJUERE, FABIENNE
6     BOQUET, PATRICE
7     MUNRO, PATRICK
8     FLATAU, GILLES
10 <120> TITLE OF INVENTION: A VACCINE COMPOSITION COMPRISING AN IMMUNOADJUVANT
11     COMPOUND CONSISTING OF A RHO GTPASE FAMILY ACTIVATOR
13 <130> FILE REFERENCE: 0510-1145
15 <140> CURRENT APPLICATION NUMBER: 10/589,505
16 <141> CURRENT FILING DATE: 2006-08-15
18 <150> PRIOR APPLICATION NUMBER: PCT/EP05/002105
19 <151> PRIOR FILING DATE: 2005-02-25
21 <150> PRIOR APPLICATION NUMBER: EP 04300100.7
22 <151> PRIOR FILING DATE: 2004-02-26
24 <160> NUMBER OF SEQ ID NOS: 9
26 <170> SOFTWARE: PatentIn Ver. 3.3
28 <210> SEQ ID NO: 1
29 <211> LENGTH: 1014
30 <212> TYPE: PRT
31 <213> ORGANISM: Escherichia coli
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37 Val Ser Asn Phe Pro Ser Pro Glu Arg Val Val Ser Asp Tyr Ile Lys
38           20           25           30
40 Asn Cys Phe Lys Thr Asp Leu Pro Trp Phe Ser Arg Ile Asp Pro Asp
41           35           40           45
43 Asn Ala Tyr Phe Ile Cys Phe Ser Gln Asn Arg Ser Asn Ser Arg Ser
44           50           55           60
46 Tyr Thr Gly Trp Asp His Leu Gly Lys Tyr Lys Thr Glu Val Leu Thr
47   65           70           75           80
49 Leu Thr Gln Ala Ala Leu Ile Asn Ile Gly Tyr Arg Phe Asp Val Phe
50           85           90           95
52 Asp Asp Ala Asn Ser Ser Thr Gly Ile Tyr Lys Thr Lys Ser Ala Asp
53           100          105          110
55 Val Phe Asn Glu Glu Asn Glu Glu Lys Met Leu Pro Ser Glu Tyr Leu
56           115          120          125
58 His Phe Leu Gln Lys Cys Asp Phe Ala Gly Val Tyr Gly Lys Thr Leu
59           130          135          140
61 Ser Asp Tyr Trp Ser Lys Tyr Tyr Asp Lys Phe Lys Leu Leu Leu Lys
62 145          150          155          160
64 Asn Tyr Tyr Ile Ser Ser Ala Leu Tyr Leu Tyr Lys Asn Gly Glu Leu

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65          165          170          175
67 Asp Glu Arg Glu Tyr Asn Phe Ser Met Asn Ala Leu Asn Arg Ser Asp
68          180          185          190
70 Asn Ile Ser Leu Leu Phe Phe Asp Ile Tyr Gly Tyr Tyr Ala Ser Asp
71          195          200          205
73 Ile Phe Val Ala Lys Asn Asn Asp Lys Val Met Leu Phe Ile Pro Gly
74          210          215          220
76 Ala Lys Lys Pro Phe Leu Phe Lys Lys Asn Ile Ala Asp Leu Arg Leu
77 225          230          235          240
79 Thr Leu Lys Glu Leu Ile Lys Asp Ser Asp Lys Gln Gln Leu Leu Ser
80          245          250          255
82 Gln His Phe Ser Leu Tyr Ser Arg Gln Asp Gly Val Ser Tyr Ala Gly
83          260          265          270
85 Val Asn Ser Val Leu His Ala Ile Glu Asn Asp Gly Asn Phe Asn Glu
86          275          280          285
88 Ser Tyr Phe Leu Tyr Ser Asn Lys Thr Leu Ser Asn Lys Asp Val Phe
89          290          295          300
91 Asp Ala Ile Ala Ile Ser Val Lys Lys Arg Ser Phe Ser Asp Gly Asp
92 305          310          315          320
94 Ile Val Ile Lys Ser Asn Ser Glu Ala Gln Arg Asp Tyr Ala Leu Thr
95          325          330          335
97 Ile Leu Gln Thr Ile Leu Ser Met Thr Pro Ile Phe Asp Ile Val Val
98          340          345          350
100 Pro Glu Val Ser Val Pro Leu Gly Leu Gly Ile Ile Thr Ser Ser Met
101          355          360          365
103 Gly Ile Ser Phe Asp Gln Leu Ile Asn Gly Asp Thr Tyr Glu Glu Arg
104          370          375          380
106 Arg Ser Ala Ile Pro Gly Leu Ala Thr Asn Ala Val Leu Leu Gly Leu
107 385          390          395          400
109 Ser Phe Ala Ile Pro Leu Leu Ile Ser Lys Ala Gly Ile Asn Gln Glu
110          405          410          415
112 Val Leu Ser Ser Val Ile Asn Asn Glu Gly Arg Thr Leu Asn Glu Thr
113          420          425          430
115 Asn Ile Asp Ile Phe Leu Lys Glu Tyr Gly Ile Ala Glu Asp Ser Ile
116          435          440          445
118 Ser Ser Thr Asn Leu Leu Asp Val Lys Leu Lys Ser Ser Gly Gln His
119          450          455          460
121 Val Asn Ile Val Lys Leu Ser Asp Glu Asp Asn Gln Ile Val Ala Val
122 465          470          475          480
124 Lys Gly Ser Ser Leu Ser Gly Ile Tyr Tyr Glu Val Asp Ile Glu Thr
125          485          490          495
127 Gly Tyr Glu Ile Leu Ser Arg Arg Ile Tyr Arg Thr Glu Tyr Asn Asn
128          500          505          510
130 Glu Ile Leu Trp Thr Arg Gly Gly Gly Leu Lys Gly Gly Gln Pro Phe
131          515          520          525
133 Asp Phe Glu Ser Leu Asn Ile Pro Val Phe Phe Lys Asp Glu Pro Tyr
134          530          535          540
136 Ser Ala Val Thr Gly Ser Pro Leu Ser Phe Ile Asn Asp Asp Ser Ser
137 545          550          555          560

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139 Leu Leu Tyr Pro Asp Thr Asn Pro Lys Leu Pro Gln Pro Thr Ser Glu
140          565          570          575
142 Met Asp Ile Val Asn Tyr Val Lys Gly Ser Gly Ser Phe Gly Asp Arg
143          580          585          590
145 Phe Val Thr Leu Met Arg Gly Ala Thr Glu Glu Glu Ala Trp Asn Ile
146          595          600          605
148 Ala Ser Tyr His Thr Ala Gly Gly Ser Thr Glu Glu Leu His Glu Ile
149          610          615          620
151 Leu Leu Gly Gln Gly Pro Gln Ser Ser Leu Gly Phe Thr Glu Tyr Thr
152 625          630          635          640
154 Ser Asn Val Asn Ser Ala Asp Ala Ala Ser Arg Arg His Phe Leu Val
155          645          650          655
157 Val Ile Lys Val His Val Lys Tyr Ile Thr Asn Asn Asn Val Ser Tyr
158          660          665          670
160 Val Asn His Trp Ala Ile Pro Asp Glu Ala Pro Val Glu Val Leu Ala
161          675          680          685
163 Val Val Asp Arg Arg Phe Asn Phe Pro Glu Pro Ser Thr Pro Pro Asp
164          690          695          700
166 Ile Ser Thr Ile Arg Lys Leu Leu Ser Leu Arg Tyr Phe Lys Glu Ser
167 705          710          715          720
169 Ile Glu Ser Thr Ser Lys Ser Asn Phe Gln Lys Leu Ser Arg Gly Asn
170          725          730          735
172 Ile Asp Val Leu Lys Gly Arg Gly Ser Ile Ser Ser Thr Arg Gln Arg
173          740          745          750
175 Ala Ile Tyr Pro Tyr Phe Glu Ala Ala Asn Ala Asp Glu Gln Gln Pro
176          755          760          765
178 Leu Phe Phe Tyr Ile Lys Lys Asp Arg Phe Asp Asn His Gly Tyr Asp
179          770          775          780
181 Gln Tyr Phe Tyr Asp Asn Thr Val Gly Leu Asn Gly Ile Pro Thr Leu
182 785          790          795          800
184 Asn Thr Tyr Thr Gly Glu Ile Pro Ser Asp Ser Ser Ser Leu Gly Ser
185          805          810          815
187 Thr Tyr Trp Lys Lys Tyr Asn Leu Thr Asn Glu Thr Ser Ile Ile Arg
188          820          825          830
190 Val Ser Asn Ser Ala Arg Gly Ala Asn Gly Ile Lys Ile Ala Leu Glu
191          835          840          845
193 Glu Val Gln Glu Gly Lys Pro Val Ile Ile Thr Ser Gly Asn Leu Ser
194          850          855          860
196 Gly Cys Thr Thr Ile Val Ala Arg Lys Glu Gly Tyr Ile Tyr Lys Val
197 865          870          875          880
199 His Thr Gly Thr Thr Lys Ser Leu Ala Gly Phe Thr Ser Thr Thr Gly
200          885          890          895
202 Val Lys Lys Ala Val Glu Val Leu Glu Leu Leu Thr Lys Glu Pro Ile
203          900          905          910
205 Pro Arg Val Glu Gly Ile Met Ser Asn Asp Phe Leu Val Asp Tyr Leu
206          915          920          925
208 Ser Glu Asn Phe Glu Asp Ser Leu Ile Thr Tyr Ser Ser Ser Glu Lys
209          930          935          940
211 Lys Pro Asp Ser Gln Ile Thr Ile Ile Arg Asp Asn Val Ser Val Phe

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212 945          950          955          960
214 Pro Tyr Phe Leu Asp Asn Ile Pro Glu His Gly Phe Gly Thr Ser Ala
215          965          970          975
217 Thr Val Leu Val Arg Val Asp Gly Asn Val Val Val Arg Ser Leu Ser
218          980          985          990
220 Glu Ser Tyr Ser Leu Asn Ala Asp Ala Ser Glu Ile Ser Val Leu Lys
221          995          1000          1005
223 Val Phe Ser Lys Lys Phe
224 1010
227 <210> SEQ ID NO: 2
228 <211> LENGTH: 1014
229 <212> TYPE: PRT
230 <213> ORGANISM: Escherichia coli
232 <400> SEQUENCE: 2
233 Met Asn Val Gln Trp Gln Gln Lys Tyr Leu Leu Glu Tyr Asn Glu Leu
234 1 5 10 15
236 Val Ser Asn Phe Pro Ser Pro Glu Arg Val Val Ser Asp Tyr Ile Arg
237 20 25 30
239 Arg Cys Phe Lys Thr Asp Leu Pro Trp Phe Ser Gln Val Asp Pro Asp
240 35 40 45
242 Asn Thr Tyr Phe Ile Arg Phe Ser Gln Ser Arg Ser Asn Ser Arg Ser
243 50 55 60
245 Tyr Thr Gly Trp Asp His Leu Gly Lys Tyr Lys Thr Gly Val Leu Thr
246 65 70 75 80
248 Leu Thr Gln Ala Ala Leu Ile Asn Ile Gly Tyr His Phe Asp Val Phe
249 85 90 95
251 Asp Asp Ala Asn Ala Ser Ala Gly Ile Tyr Lys Thr Ser Ser Ala Asp
252 100 105 110
254 Met Phe Asn Glu Lys Asn Glu Glu Lys Met Leu Pro Ser Glu Tyr Leu
255 115 120 125
257 Tyr Phe Leu Lys Gly Cys Asp Phe Ser Gly Ile Tyr Gly Arg Phe Leu
258 130 135 140
260 Ser Asp Tyr Trp Ser Lys Tyr Tyr Asp Lys Phe Lys Leu Leu Leu Lys
261 145 150 155 160
263 Asn Tyr Tyr Ile Ser Ser Ala Leu Tyr Leu Tyr Lys Asn Gly Glu Ile
264 165 170 175
266 Asp Glu Tyr Glu Tyr Asn Phe Ser Ile Ser Ala Leu Asn Arg Arg Asp
267 180 185 190
269 Asn Ile Ser Leu Phe Phe Phe Asp Ile Tyr Gly Tyr Tyr Ser Ser Asp
270 195 200 205
272 Met Phe Val Ala Lys Asn Asn Glu Arg Val Met Leu Phe Ile Pro Gly
273 210 215 220
275 Ala Lys Lys Pro Phe Leu Phe Glu Lys Asn Ile Ala Asp Leu Arg Ile
276 225 230 235 240
278 Ser Leu Lys Asn Leu Ile Lys Glu Asn Asp Asn Lys Gln Leu Leu Ser
279 245 250 255
281 Gln His Phe Ser Leu Tyr Ser Arg Gln Asp Gly Ile Thr Tyr Ala Gly
282 260 265 270
284 Val Asn Ser Val Leu Asn Ala Ile Glu Asn Asp Gly Val Phe Asn Glu

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285          275          280          285
287 Ser Tyr Phe Leu Tyr Ser Asn Lys Arg Ile Asn Asn Lys Asp Val Phe
288          290          295          300
290 Asp Ala Val Ala Phe Ser Val Lys Lys Arg Ser Phe Ser Asp Gly Asp
291 305          310          315          320
293 Ile Val Ile Lys Ser Asn Ser Glu Ala Gln Arg Asp Tyr Ala Leu Thr
294          325          330          335
296 Ile Leu Gln Thr Ile Leu Ser Met Thr Pro Ile Phe Asp Val Ala Ile
297          340          345          350
299 Pro Glu Val Ser Val Thr Leu Gly Leu Gly Ile Ile Ala Ser Ser Met
300          355          360          365
302 Gly Ile Ser Phe Asp Gln Leu Ile Asn Gly Asp Thr Tyr Glu Glu Arg
303          370          375          380
305 Arg Ser Ala Ile Pro Gly Leu Ala Thr Asn Ala Ala Leu Leu Gly Leu
306 385          390          395          400
308 Ser Phe Ala Ile Pro Phe Leu Ile Ser Lys Ala Gly Thr Asn Gln Lys
309          405          410          415
311 Ile Leu Ser Arg Tyr Thr Lys His Glu Ile Arg Thr Leu Asn Glu Thr
312          420          425          430
314 Asn Ile Asp Met Phe Leu Glu Glu Tyr Gly Ile Asn Lys Asn Ser Ile
315          435          440          445
317 Ser Glu Thr Lys Val Leu Glu Val Glu Leu Lys Gly Ser Gly Gln His
318          450          455          460
320 Val Asn Ile Val Lys Leu Ser Asp Glu Asp Asn Lys Ile Val Ala Val
321 465          470          475          480
323 Lys Gly Asn Ser Leu Ser Gly Ile Tyr Tyr Glu Val Asp Ile Glu Thr
324          485          490          495
326 Gly Tyr Glu Ile Ser Ser Arg Arg Ile Tyr Arg Thr Glu Tyr Asn Asp
327          500          505          510
329 Lys Ile Phe Trp Thr Arg Gly Gly Gly Leu Lys Gly Gly Gln Ser Phe
330          515          520          525
332 Asp Phe Glu Ser Leu Lys Leu Pro Ile Phe Phe Lys Asp Glu Pro Tyr
333          530          535          540
335 Ser Ala Val Pro Gly Ser Ser Leu Ser Phe Ile Asn Asp Asp Ser Ser
336 545          550          555          560
338 Leu Leu Tyr Pro Asn Ser Thr Pro Lys Leu Pro Gln Pro Thr Pro Glu
339          565          570          575
341 Met Glu Ile Val Asn Tyr Val Lys Arg Ala Gly Asn Phe Gly Glu Arg
342          580          585          590
344 Leu Val Thr Leu Met Arg Gly Thr Thr Glu Glu Glu Ala Trp Asn Ile
345          595          600          605
347 Ala Arg Tyr His Thr Ala Gly Gly Ser Thr Glu Glu Leu His Glu Ile
348          610          615          620
350 Leu Leu Gly Gln Gly Pro Gln Ser Ser Leu Gly Phe Thr Glu Tyr Thr
351 625          630          635          640
353 Ser Asn Ile Asn Ser Ala Asp Ala Ala Ser Arg Arg His Phe Leu Val
354          645          650          655
356 Val Ile Lys Val Gln Val Lys Tyr Ile Asn Asn Asn Asn Val Ser His
357          660          665          670

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**VERIFICATION SUMMARY**

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